

REMARKS

Applicants' attorney is appreciative of the interview granted by the Examiner on October 2, 2003. At that interview, an amendment to Claim 24 was proposed, and the differences between the new claim and the art of record were discussed.

Claims 24 through 28, 30 through 39 and 43 through 46 have been rejected under 35 USC 103 over Booth in view of Kawasaki et al and Yeager or Flonc et al.

As discussed at the interview, Claim 24 has now been amended to recite that the preform used as a starting point in the method of the invention has both substantially constant material thickness and substantially constant fiber volume content at at least one intersection or node point and adjoining portions of the preform. Further, Claim 24 has been amended to clarify that this preform having substantially constant material thickness and substantially constant fiber volume content at the nodes and adjoining portions is placed in a mold, saturated with a monomer or polymer, and subjected to a curing of the monomer or polymer in the mold to form a blank.

In addition, new Claim 47 has been added to the application, specifying that the preform is obtained by tailored fiber placement, as set forth in the last paragraph on page 7 of the specification.

Booth has been cited to show a method for making a grid-like carbon-carbon composite by weaving together strands of carbon fabric, impregnating and pyrolyzing. Booth does not disclose or suggest that the nodes should have the same material thickness and fiber volume content as the adjacent areas.

Kawasaki et al has been cited to show a fiber grid

reinforcement including first and second fiber bundles intersecting at right angles, in which the second group of fiber bundles includes a greater number of fibers than the first fiber bundles. Kawasaki et al discloses at column 3, lines 25 through 28, that the intersection section is pressed to a final form so that the bulge at the intersection caused by the layering of the groups of fibers is compacted to the same thickness as the other sections of the fiber grid. While this may result in a final product in which all sections have the same thickness, the reference does not disclose or suggest the process of the invention because this pressing presumably takes place after saturation of the fibers with resin and curing of the resin to obtain the final product. Kawasaki et al thus does not disclose or suggest obtaining a preform with substantially constant material thickness and substantially constant fiber volume content at the nodes and adjacent areas, prior to saturation with resin and curing. Moreover, while Kawasaki et al does disclose a final product with substantially constant thickness, it is submitted that the efforts does not disclose or suggest a final product or a preform having a substantially constant fiber volume content at the intersections and the adjoining portions, because the reference discloses pressing only and does not disclose any method for obtaining the substantially constant fiber volume content. Note that according to the invention, the preform may be obtained by tailored fiber placement, and Claim 47 has now been added to the application to specify this process.

Yeager and Flonc et al have been cited to show the use of a mold for curing preforms, but these references do not otherwise cure the defects of the Booth and Kawasaki et al references.

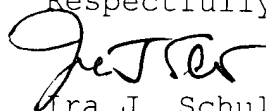
Withdrawal of this rejection is requested.

Claim 29 has been rejected under 35 USC 103 over Booth in view of Kawasaki et al and Yeager of Flonc et al, and further in view of Leoni et al, which has been cited to show the use of a mold comprising flexible elements. However, Leoni et al does not otherwise cure the defects of the Booth and Kawasaki et al references, and withdrawal of this rejection is requested.

Claims 40 through 42 have been rejected under 35 USC 103 over Booth in view of Kawasaki et al and Yeager, and further in view of Suokas et al, which has been cited to show the use of a thermoplastic matrix material. However, Suokas et al does not otherwise cure the defects of the Booth and Kawasaki et al references, and withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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